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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,519	03/08/2004	Kan Chun Chiang	14282 B	1942

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CHARLES E. BAXLEY, ESQ.
90 JOHN STREET
THIRD FLOOR
NEW YORK, NY 10038

EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/796,519	Applicant(s) CHIANG, KAN CHUN	
	Examiner Alan S. Chen	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/08/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Independently Intelligent Hard Disk.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Last limitation of claim 1 recites, "...said MPU being operable with said monitor control interface to communicate with other facilities without coupling said hard disk to further facilities". It is indefinite whether the "other facilities" and "further facilities" can be the same facilities. Examiner assumes this is a possible where the other other facilities can be the same facilities. Furthermore, it is indefinite whether coupling is wireless or wired connections. Examiner assumes the limitation means either wired or wireless. Claims 2-4 are rejected as being dependent on a rejected base claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over US Pat. Pub. No. 2003/0056098 to Aihara in view of US Pat. No. 2004/0088456 to Zhang.

7. Per claim 1, Aihara discloses a hard disk (*Fig. 2, element 1, HDD*) comprising: an MPU (*Fig. 2, element 13*), a memory unit coupled to said MPU (*Fig. 2, element 11*), for data storing and accessing purposes (*Fig. 2, element 11 the physical hard disk, which stores and accessing of data is performed, by definition*), a storing interface coupled to said MPU for data storing and accessing purposes (*Fig. 3, element 12, the hard disk controller interfaces the hard disk for read/write to hard disk*), a transmission interface coupled to said MPU for communicating with other facilities (*Fig. 2, element 16 USB interface, facilitates communication to external machines, e.g., Fig. 1, elements 2 and 3*), and a power unit coupled to said MPU for energizing said MPU (*Fig. 2, element 20*).

Aihara does not disclose expressly a monitor control interface coupled to said MPU, for controlling said MPU such that the MPU can communicate with facilities other than the hard disk drive without requiring external control from another facility.

Zhang discloses monitor control interface that is built on the outside surface of an independent hard drive, the hard drive connects directly with various other peripheral facilities (*Fig. 1, element 2C*). The monitor control interface controls access to and from the hard disk drive (*Paragraph 74*) without the aid of any other peripheral facility.

Aihara and Zhang are analogous art because they are from the same field of endeavor of external hard disk drives that attach to various other peripheral devices so that bidirectional communications can occur between the hard disk and peripheral devices.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement a monitor control interface on the external hard disk drive of Arihara.

The suggestion/motivation for doing so would have been to allow control directly and independently on the hard disk drive itself to avoid the hassles of configuring the hard disk on a separate peripheral facility (e.g., backing up data or viewing directory structure would be much simplified if initiated on the external hard disk drive itself).

Therefore, it would have been obvious to combine Arihara with Zhang for the benefit of simplifies operations of the external hard disk drive.

8. Per claim 2, Aihara combined with Zhang discloses claim 1, Aihara further discloses the transmission interface includes a wireless interface and a cable interface for communicating with the other facilities (*Fig. 7, element 16 and 33*).

9. Per claim 3, Aihara combined with Zhang discloses claim 2, Aihara further discloses cable interface is a USB interface (*Fig. 7, element 16*).

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10. Per claim 4, Aihara combined with Zhang discloses claim 1, Aihara further discloses said power unit includes at least one battery (*Paragraph 40*) and a power circuit (*Power regulators, converters, etc*).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents and patent related publications are cited in the Notice of References Cited (Form PTO-892) attached to this action to further show the state of the art with respect to external hard disk drives that communicate directly with peripherals.

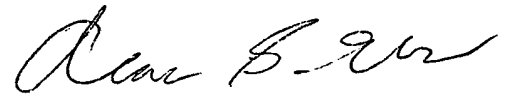
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC
10/16/2006


10/16/06